Article

"Occupational Segregation and Equal Pay for Work or Equal Value"

Roberta Edgecome Robb

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The recent federal «Equal Pay for Work of Equal Value» legislation challenges the usual supply-demand mechanism of wage determination. This paper analyzes the legislation within the context of economic models of occupational segregation and oc-cupational wage differentials. The aim is to assess whether or not the legislation is likely to produce any significant negative side ef-fects (such as unemployment) for women in the labour market.

On March 1, 1978, the *Canadian Human Rights Act* came into force[1]. The purpose of this Act was to extend the laws in Canada which dealt with discrimination and with the protection of the privacy of individuals[2]. Among its many clauses on proscribed discrimination, a new and, to some, revolutionary concept appeared with respect to male/female earnings discrimination. In section II of the Act, it is described as a discriminatory practice «for an employer to establish or maintain differences in wages bet-ween male and female employees employed in the same establishment who are performing work of equal value»[3]. Thus, employers are required not on-ly to pay equal wages for identical or similar work (as previously legislated), but also to pay equal wages for jobs which may be entirely different in nature, but are deemed to be of 'equal value' to the firm.

Judging from publications designed to clarify the nature and intent of section II,[4] it seems clear that the long run intent of the legislation is to eliminate what the Human Rights Commission sees as female job ghettos. Furthermore, section II is designed «to push for a reappraisal of existing compensation and job evaluation systems in organizations under federal

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1 For a complete statement of this Act, see *Canada Gazette* [6].

2 Note that this Act only applies to institutions within the Federal jurisdiction.

3 See the *Canadian Human Rights Act,* section 11, s.s. (1).

4 See, for example, Canadian Human Rights Commission [7] and [8].

jurisdiction»[5]. Thus, the main thrust of the legislation is to eliminate existing male/female wage differentials resulting from occupational segregation, and to prevent future occurrences of such differentials.

Clearly, the intent of such legislation is admirable, and few would quarrel with its basic aims. From an economic viewpoint, however, it seems useful to consider the effects of such legislation in the labour market. In particular, we consider here whether or not the legislation, which challenges the usual supply-demand mechanism of wage determination, can be enforced without producing significant side effects (such as unemployment) for women in the labour market.

In addressing this question, we briefly review in Section II the economics literature on occupational segregation;[6] section III discusses the legislation and analyses its impact in the labour market in view of our hypotheses about the causes and forms of occupational segregation; and section IV presents a summary and conclusions.

OCCUPATIONAL SEGREGATION IN THE LABOUR MARKET

The fact that males and females in the Canadian labour force have different occupational distributions is easily documented[7]. In 1971, for example, 71% of all female workers were employed in five of the twenty-two major occupational categories, with the clerical and service occupations alone accounting for almost 47% of the total. Only 31% of males, on the other hand, were concentrated in these same five occupations[8]. Moreover, there is evidence to suggest that the females' occupational distribution is inferior to that of the males in terms of earnings even after personal characteristics are accounted for. Statistical analyses on Canadian data[9] for example, suggest that when occupation is omitted from an earnings determinants equation, the amount of the unemplained earnings differential between males and females rises, indicating that females are concentrated in occupations which are lower paid.

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   5 Canadian Human Rights Commission [8] p. 2.
   6 We recognize that other disciplines, notably Sociology, have developed theories of male/female earnings discrimination. However, this paper focuses solely on the economic models of occupational segregation.
   7 See for example, Statistics Canada [23] and [25].
   8 *Statistics Canada* [23] Chart 10. The five occupations are clerical and related; sales; service; medicine and health; teaching and related.
   9 See for example, GUNDERSON [16]; Ontario Ministry of Labour [18]; ROBB [21]; and SHAPIRO and STELCNER [22].

If the existence of occupational segregation and the associated male/female earnings differentials are easily pinpointed, however, their causes are not, even though they have been the subject of a literature extending over many decades[10]. To provide a useful framework within which to consider the problems of the sex-segregation of occupations, therefore, this paper primarily follows the approach of Gary Becker [3] and shows how discriminatory tastes can lead to wage differentials and/or segregation. In addition, we briefly review the models of Arrow [1], Phelps [19], Doeringer and Piore [9], Polachek [20], and Bergman [4], and show how they complement or provide an alternative to the Becker type of framework.

In Becker's analysis, discrimination occurs because the employers, the employees and/or the customers are prejudiced against a certain group in the labour force. If employers do not like hiring females, they will do so only if there is an incentive such as a reduced wage. If the majority of the work force (i.e. males) dislikes working with females, they will be willing to do so only if there is some incentive such as a wage premium. And if customers dislike dealing with female workers (or dislike using products produced by females) they will do so only if there is an incentive such as a reduced price, which in turn would lead to a reduced female wage[11]. In all these cases, the proportionate male/female wage differential that arises as a result of discriminating behaviour has been referred to by Becker as the 'discrimination coefficient' — 'd'.

Although Becker's theory is presented as an analysis of discrimination within a given occupation, we note that occupational segregation can be considered as a special case. The key to the use of this theory as a model of occupational segregation lies in the fact that the discrimination coefficient -d- is assumed to differ in size not only by employer, but also by occupation. In particular, males (both employers and employees) may require greater compensation (larger d) to work with females in jobs which they perceive as 'male jobs', but require little or no compensation for associating

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10 For a good summary and bibliography of various discrimination models, see GUNDERSON [14] Chap. 21 or R.B. FREEMAN [13].

11 Suppose, for example, that customers don't like dealing with female lawyers, and are only willing to do so at a reduced price. In such a case, although the productive characteristics and, presumably, the real marginal product of male and female lawyers are the same, the price which customers will pay for the output of the female lawyer is lower, and hence the value of her marginal product is also lower.

with women in jobs which they perceive as 'women's jobs'[12]. In fact, if the discriminatory preferences are large enough in certain occupations, no women at all may be employed in these jobs; they will choose to work elsewhere. These cases are illustrated in Figures 1(a), (b) and (c) (see Diagram I). The figures show two occupations, mail clerks — a 'male' job and typists — a 'female' job. Let us assume that the jobs are equally productive in the sense that males and females can do either job equally well. In the male occupation (see Figure 1(a)) S_m is the supply of males to that occupation at the wage W_m^{13}. VMP is the market demand for mail clerks and S_f is the supply of females to this occupation. The discrimination coefficient -d- is assumed to be positive and large, such that firms behave as if the supply of females was actually $S_f + d^{14}$. In this case, it can be seen that because the discrimination coefficient is so large, the wage which employers are prepared to pay women (W_m - d) is lower than the females' minimum supply price (indicated by S_f). Hence no women will be employed in this male occupation. An important question is: why would the supply curve of women to this occupation be such that few if any women would be employed in the male occupation? The explanation is simple. If females are discriminated against less in other occupations, female earnings may be higher there and will attract women that normally would supply themselves to this male oc-

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12   There seems to be some evidence in Canada to support the contention that the wage differentials do differ by occupation. Although the data are unadjusted for productive characteristics, we note, for example, that in 1979, female office managers (a male occupation) earn only 84.2% of the male average weekly wage, whereas in the occupation 'junior secretary' — presumably a female occupation — females earned 99.1% of the male average weekly wage rate. (See Statistics Canada [25] Table 13). Moreover, in some econometric analysis by M. GUNDERSON [15] — on U.S. data — he suggests that there is a statistically significant relationship between the ratio of female to male earnings and the income (status) of the occupation, although it does not appear to be large.

13   For ease and clarity of exposition (and because we are primarily interested in the male/female differential and not the actual level of male wages) we have assumed that the male wage is given to this occupation, and supply is infinitely elastic at that wage. We note, however, that allowing for an upward sloping supply curve of males to this occupation (and hence showing how the equilibrium wage in this occupation is determined) would not change the comparative statics outlined in this paper. As long as 'd' is large enough, complete segregation will occur.

14   Again, for ease of diagramatic exposition the size of the discrimination coefficient 'd' is assumed to be constant over all employers and independent of the number of females hired by each employer. Increasing discriminatory tastes among employers could be shown by increasing the difference between S_f and $S_f + d$ as the employment of women increases. This would then give rise to the standard downward sloping demand for females when plotted against the male/female wage ratio. But again, the comparative statics of this case are not different from those using the simpler assumption.

cupation[15]. A second consideration comes into play if the male occupation in question involves training. Because of the low female wages, the return on the investment will be low and this will discourage females from seeking the training necessary to enable them to enter this occupation[16].

DIAGRAM I

Figure 1(a)

Male Occupation — Mail Clerks

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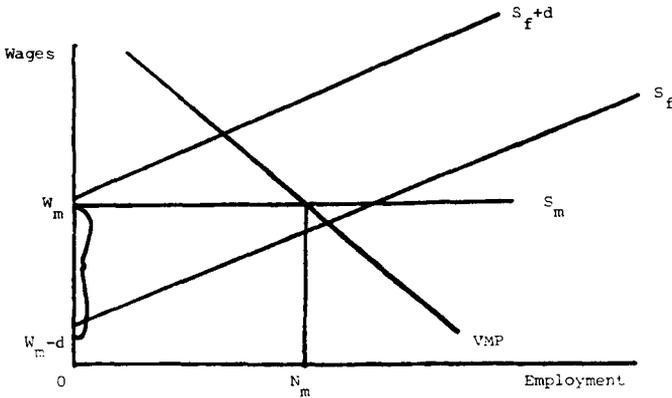
15   For example, in 1979, the average weekly wage for female senior secretaries (a female job) was $260 per week, and for female senior computer operators (a male job?) was only $255 per week. The comparable figures for the males in these occupations were $273 and $309 respectively. See Statistics Canada [25].

16   A further question of interest here is why the supply curve for women would ever start *below* W_m;, i.e. why would women supply themselves to a male occupation where their wages were lower than those of the males? The answer is clearly related to limited opportunities and discrimination against women elsewhere in the economy.

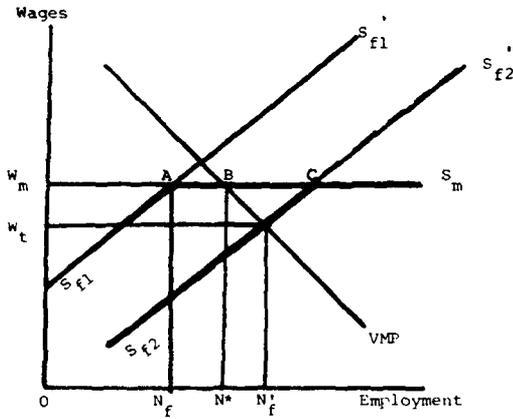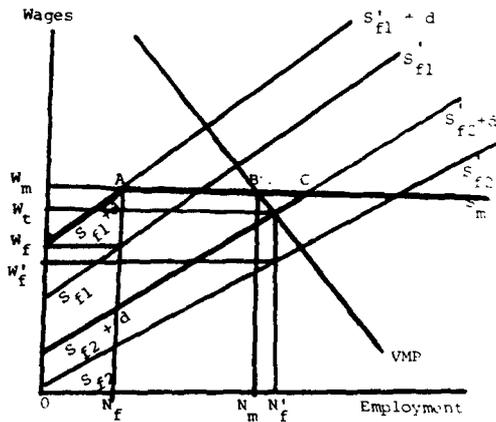**Figure 1(b)**

Female Occupation — Typist

Figure 1(c)

Female Occupation — Typist

Turning to Figures 1(b) and (c), the 'female' occupation is illustrated under differing assumptions about the employers' discriminatory tastes towards women in female jobs. In Figure 1(b) it is assumed that the employers are neutral towards females, i.e. they do not require to be compensated (in terms of reduced wages) for hiring female typists who are equally productive as male typists (males are assumed to be able to compete in the female occupation but not the converse; segregation has occurred because women have been excluded from the male occupation by a prohibitively large discrimination coefficient in that occupation)[17]. In this case, the wage in the male job (W_m) is the opportunity cost for male typists and (in the absence of preferences on the part of the males to be typists) it provides an upper bound for the wages in the female job. If VMP is the market derived demand curve for typists, S_m the supply of male typists, $S_{f1}S_{f1}'$ the supply of female typists and $S_{f1}AS_m$ is the relevant aggregate supply of typists, then complete segregation will not occur when demand cuts supply as is shown in this figure. N^*N_f and ON_f will be the levels of male and female employment respectively, and male and female typists will both be paid W_m. On the other hand, if the supply of females shifts to $S_{f2}S_{f2}'$ (and hence the aggregate typist supply curve shifts to $S_{f2}CS_m$) then the wage will fall to W_t and complete segregation will occur; males will work in the male occupation where the wage is higher. This is the sort of situation which Barbara Bergman [4] has labelled as occupational overcrowding. Complete segregation occurs and the wages of the female typists are lower than those of the (equally productive) male mail clerks. Note that this occurs even though there is no discrimination in the female job.

On the other hand, consider Figure 1(c) which illustrates the case in which the employers discriminate against women in the female occupation as well as in the male occupation, although to a lesser degree. Here the male

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17   We note here that it is tempting to analyse the male/female occupations symmetrically. That is, it is tempting to say that there is a large positive 'd' for females in the male occupation, and similarly a large positive 'd' for males in the female occupation. But this implies that males will not be hired in the female occupations except at wages that are lower than those of the females, and casual observation suggests that this is not necessarily the case. We suggest, therefore, that there is an assymmetry in the market whereby females are excluded from certain jobs, whereas males are not limited in their choice. The fact that few males are observed in certain female occupations is perhaps more the result of good opportunities elsewhere. Moreover, the fact that males have recently started moving into some traditionally female jobs such as teaching, nursing, and even secretarial work suggests that males can and will move into jobs as soon as the level of wages makes it economically attractive for them to do so. A recent example of this may be suggested by the current market for secretaries in the U.S. As a result of the women's movement there, women appear to be moving away from secretarial jobs — an occupation which they now perceive as menial. Because of the shortage of supply and the resulting rise in wages for this occupation, males have been entering this market.

wage less the level of prejudice -d- acts as an upper bound on the wages of the female typists just as in the last example, the wage in the male occupation served as an upper bound on the female wage. Now if the aggregate supply is $(S_{f1} + d)AS_m$ then complete segregation by sex would not occur. Female employment will be ON_f, male employment will be N_fN_m, male wages will be W_m and the female wage will be $W_f (= W_m - d)$[18]. To avoid prosecution under the equal pay for equal work legislation however, such differentials may well induce employers to effect a type of spin-off segregation whereby they label female typists as 'typists' and male typists as 'executive assistants'[19]. If, however, the supply of females shifts to S_{f2} (and aggregate supply to $(S_{f2} + d)CS_m$) then complete segregation will occur (employers would only be willing to pay males $W_t(= VMP)$ which is now less than W_m, the wage they could earn in the male occupation). The number of females employed will be N_f' and their wage will be $W_f'(= W_t -d)$. In comparing the two now totally segregated occupations (typists and mail clerks), the wage of the female typists will again be lower than those of the equally productive mail clerks.

In summary, it is argued that in the Becker model of employer discrimination, occupational segregation of (equally productive) males and females need not necessarily give rise to occupational wage differentials by sex if employers are neutral towards females in the female jobs. To the extent, however, that overcrowding in the female occupations may well be an inevitable result of occupational segregation and/or to the extent that employers have non-zero discrimination coefficients in all jobs, then wage differentials can occur between equally productive males and females with or without complete segregation.

In the case in which the employer himself is not prejudiced but his male employees are, then the occupational segregation may take place for reasons suggested by Arrow [2]. For example, male unskilled workers may prefer male, to female supervisors. If female supervisors are used, the employers would have to compensate the male unskilled labour force with higher wages[20]. Rather than do this (because of the competitive cost disad-

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18   Note that given our assumption of a constant 'd' over employers, employment of women could be increased up to point B without affecting the size of the differential $W_m - W_f$. However, if we had used the standard assumption of increasing discriminatory preferences over employers, then the differential would rise as more females were employed.

19   That this may indeed have occurred in some instances is supported by some of the cases submitted to the Commission. For example, a review of the functions of female nurses versus male technicians working in the federal penitentiaries, and those of female librarians versus male historical researchers, showed that they were pretty similar in both cases.

20   That this type of preference may exist in Canada is suggested by the following: in response to a 1974 Gallup Poll question put to Canadians, 41.5% indicated that they preferred a male boss.

vantage involved), the employer may simply refuse to hire females in super-
visory or managerial positions. Employee discrimination of this type,
therefore, may lead to occupational segregation along skill lines (females
are excluded from any professional or skilled jobs which might entail super-
vising males) and occupational sex differentials due to the differing human
capital requirements may be an inevitable result.

An alternative approach to the Becker/Arrow framework for explain-
ing occupational segregation is suggested by the works of Phelps [19] and
Doeringer and Piore [9]. Phelps developed a theory based on the hypothesis
that an employer who wanted to maximize expected profit will discriminate
against women if he believes them to be less productive, or less stable
employees, on average, then men[21]. It need not be true that all members of
the group are, in fact, less productive, but if the cost of gaining information
on individuals is high, then sex may be taken as a proxy so that individuals
are assumed to have the characteristics of the group. This has been called
«statistical» discrimination and it can lead to wage differentials, occupa-
tional segregation or both.

A prediction arising from the existence of statistical discrimination is
that individuals in a group with perceived undesirable characteristics may be
excluded from certain jobs in the economy. In particular, if there is a 'dual'
labour market as suggested by Doeringer and Piore [9], then women as a
group may be segregated, because of this statistical discrimination, into the
'secondary' labour market where the jobs are characterized by low produc-
tivity, high turnover, low wages, etc. And once 'assigned' to the secondary
labour market, it seems clear that segregation can become self-perpetuating.
As employees acquire the working characteristics of the secondary market
(little or no training and a reputation for high turnover, for example) this
creates further barriers to them being considered for jobs in the 'primary'
labour market. To the extent that the jobs in the secondary market are truly
less productive than those in the primary market, then the wages of females
(who are assumed to be able to do either job) may well be lower than those
of males.

A final hypothesis on the causes of occupational segregation focuses on
the supply side of the market. Recent empirical work[22] shows that intermit-
tent work experience imposes costs (in terms of lower current earnings)
because of deterioration of skill and foregone appreciation of earnings due
to experience during the period of absence from work. Formalizing this pro-
blem in terms of a human capital model, Solomon Polachek [20]

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21 See PHELPS [19], p. 659.

22 See for example MINCER and OFEK [17].

hypothesizes that if the loss of earnings potential that can be attributed to work intermittancy — the atrophy rate — differs by occupation, then individuals who expected to participate in the labour market in an intermittent fashion might well choose occupations with low atrophy rates. In other words, given males and females with identical work characteristics (years of schooling etc.), if females expect to be out of the labour force for a period of time raising children, for example, then this fact alone would cause different occupational distributions between men and women if occupations have different atrophy rates[23].

In summary, a number of points seem worth noting about these alternative explanations of occupational segregation and wage differentials. First, the four hypotheses are clearly not mutually exclusive. It is indeed possible that some employers do discriminate because they have an attitude about where women 'belong', while others discriminate because they perceive women as a group to have undesirable work characteristics, and find the costs of determining the true characteristics of a given individual too high. Moreover, male employee discriminatory tastes may lead to occupational segregation by sex along skill lines, and occupational segregation from the supply side (occupational choices of women) could occur simultaneously with the demand side pressures. Secondly, both demand side models and supply side models are not without their critics (at the theoretical level), as well as their advocates[24]. Hence, in the absence of conclusive empirical evidence these arguments remain, simply, hypotheses about the causes of occupational segregation by sex.

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23 POLACHEK's empirical work seems to lend some support to his hypotheses. Using eight broad occupational categories (U.S. data), he finds that more home-time (i.e. larger periods of time spent out of the labour force) increases the probability of being in all except the managerial occupations. Moreover, the size of the coefficients indicate that those with the greatest home-time are lease likely to enter managerial and professional occupations which, as Polachek shows have the highest atrophy rate. More recent work by Paula ENGLAND [11] however, does not seem to support Polachek's hypothesis. We hasten to note, moreover, that this analysis while illuminating, is not in any way designed to suggest that the observed occupational segregation of the labour force by sex is due solely, or even substantially, to women's decisions about the type of work they are willing or able to do, given their domestic constraints. It is simply designed to show that even in the complete absence of any discriminatory segregation arising from the demand side, some occupational segregation might still be observed as long as traditional views of women's role vis-à-vis the household and family persist or to the extent that optimal occupational choice is influenced by variables such as the atrophy rate.

24 For a good review of the pros and cons of BECKER'S model, see R.B. FREEMAN [13] and M. GUNDERSON [14] Chap. 21. For a critique of the 'dual' labour market theory, G. CAIN [5].

With respect to wage differentials, occupational segregation by sex need not, necessarily, give rise to wage differentials by sex. To the extent, however, that overcrowding in the female occupations may well be an inevitable result of occupational segregation, wage differentials will occur between equally productive males and females. Moreover, if employers have non-zero discrimination coefficients in all jobs, and/or women are segregated into the less productive jobs in the economy because of male employer, male employee and/or statistical discrimination then female wages will be lower than those of equally productive males.

In light of the above analysis we turn now to a consideration of the effects in the labour market of enforcing the equal pay for work of equal value legislation.

EQUAL PAY FOR WORK OF EQUAL VALUE: LABOUR MARKET EFFECTS

The equal pay for work of equal value legislation prohibits paying different wages to males and females in the same establishment who are performing work of equal value. There are, however, provisions for differential wages if the existence of 'reasonable factors' can be demonstrated. These reasonable factors consist of different performance ratings (merit pay); seniority (experience); red circling (down-grading of a position resulting in wages which are temporarily fixed or wage increases that are temporarily curtailed); rehabilitation assignments (wages higher than justified by the value of work while the employee recuperates from an illness of limited duration); demotion pay procedures; and temporary training positions (trainess may receive lower wages than employees who work in such positions on a permanent basis). The Commission is quick to point out, however, that these factors justify a difference in wages only «if they are applied consistently and equitably in calculating and paying the wages of all male and female employees in the same establishment who are performing work of equal value»[25].

Clearly the focal point of the legislation is the principal of equal value. In section II (2) of the Act, it is clearly stated that the criterion to be applied to assess the value of work to a given employer is the composite of skill, effort and responsibility required in the performance of the work, and the conditions under which the work is performed. The raison d'être for the legislation, moreover, is the belief that some employers have been, and are, sex-biased, in the sense that they have placed greater value on 'male' job

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25   Canadian Human Rights Commission [7], p. 6.

qualifications than on 'female' ones. For example, it has been argued that the amount of physical effort required in some male jobs has been given more weight than, say the mental effort required in certain female jobs. Hence, even though in some 'objective' sense the women's jobs might be of equal value to those of the males, they are systematically undervalued by the employer, which results in lower wages for such jobs. Hence, the legislation «challenges the economic principle of supply and demand, considering that it has been distorted in its application to the wage market because the methods used to categorize the wage market were developed on the basis of unbalanced factors»[26].

It is argued in this paper that placing greater value on 'male' qualifications by employers is consistant with Becker's model of discrimination in the following sense. As discussed in Section II, if employers have a taste for discrimination, they behave as if females were less productive than comparable males. We note, moreover, that it is generally not acceptable for discriminators to advertise their prejudice — especially in view of the existence of anti-discriminatory legislation. Hence discriminatory behaviour needs to be disguised and discriminatory action justified. It is suggested, therefore, that the employer's prejudice against women manifests itself through the job evaluation system used by some firms to rank occupations in terms of their value or productivity. Discriminating employers are assumed to place lower weights on the factors (skill, effort, etc.) which are used as indirect measures of the value of women's jobs in the firm. Consequently, under these circumstances, wages in the female jobs would be lower than in the jobs of equally productive males.

To consider the labour market effects of applying the legislation to such a case, let us briefly refer to the model of employer discrimination in Section II. Considering Figures 1(a) and 1(c) together, it was shown that a large discrimination coefficient in the male (mail clerks) job results in women being completely excluded from that occupation. Women can only work in the female job (typists) where they are still discriminated against although to a lesser degree (than in the male job). Males, however, are assumed to be free to compete in either job and as long as they can earn their alternative wage (W_m) are assumed to be willing to work as typists. Complete segregation by sex therefore, (between mail clerks and typists) need not occur, though a third male occupation, say executive assistants, might be created if the employer wants to avoid being prosecuted under the equal pay for equal work legislation. Complete segregation by sex between mail clerks and typists will occur, however, if overcrowding of female

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26 Canadian Human Rights Commission [8], p. 4.

typists results in the wage that employers would be willing to pay males in that occupation (W_t) being lower than the wage that males could earn as mail clerks (W_m). The wage of the female typists, relative to equally productive males, will depend, in this model on whether or not segregation by sex is complete. If it is not, then the wage of the female typists will differ from that of male typists (executive assistants) and hence the mail clerks by exactly the discrimination coefficient 'd' in the female job. If overcrowding occurs (and hence complete segregation) then the female typists' wage will still be lower (by an amount 'd') than the wage that would be paid to male typists (W_t) if there were any males willing to be typists, and will be lower than the wage of the mail clerks, by an amount larger than 'd' (see Figure 1(c)). The effects of raising the wage of female typists to some other (equally productive) male occupation, therefore, depend on whether or not complete segregation has occurred. Let us consider both cases.

Let us first assume that complete segregation by sex has occurred between the mail clerks and the typists (see Diagram II, Figure 2(a)), and that discriminatory tastes against females as typists are present. The current wage of the mail clerks is W_m and the wage and employment level of the (assumed equally productive) typists is W_f and N_f respectively. Suppose the Human Rights Commission looks at this case and correctly diagnoses it as discrimination, and insists that the wages of the typists should be raised to those of the mail clerks. A number of things might occur as a result: First, suppose for the moment that the legislation covers all firms hiring typists, and the Commission forces them all to raise the wage of typists to W_m. In this case, reduced employment will occur although its extent is not entirely determinate in this model. At the very least, total employment of typists in the economy will fall to N', so that $N'N_f$ female typists will now have to train for some other occupation. A further unemployment reduction of female typists could occur, however, for the following reason: because the employers are discriminators and have to be compensated for hiring women, forcing them to pay females the same wage as males makes the firms' subjective cost of females higher than that of males. That is, employers react as if the female's wage was now $W_m + d$. Hence the relevant aggregate supply curve of typists is now $W_m S_m$ (i.e. males have the lowest effective wage). In this case, employers might conceivably try to replace the female typists with male typists, and employment of female typists could fall to zero. We would argue though that this is highly unlikely, at least in the short run, because of the existence of anti-discriminatory employment legislation. At the very least, as typing positions become available, women will undoubtedly encounter increased competition from males for these positions, and to the extent that the employer can circum-

vent the employment legislation, new hires may go to males. Secondly, in the case that not all firms are covered by the legislation (as is currently the case) then if typists are laid off in the covered sector because of the application of the legislation, they may move into the uncovered sector and drive down the wages for typists there[27]. Thirdly, if the legislation is directed only at one firm (or a few firms) in the market, then this firm will be put at a cost disadvantage vis-a-vis its competitors in the sense that it now has to pay higher wages for its typists. This will undoubtedly result in some unemployment of female typists both because of a reduction in the total number of typists employed at the higher wage and some attempted replacement of females with less (subjectively) costly males. The employment of female typists could drop to zero, of course, if the firm is forced out of business because of the cost disadvantage[28].

On the other hand, let us assume that complete segregation by sex has not occurred. The Human Rights Commission would then most likely compare female typists and male executive assistants, providing the latter group is large and easily identified. In this case, the wage of the female typists will initially be lower than that of the male executive assistants by exactly the amount of the discrimination coefficient in the female job (see Diagram II, Figure 2(b)). In this case, the effect of forcing the firms to pay typists the same wage as the male executive assistants should not result in any drop in total employment from N*. However, as with the previous case, to the extent that firms are able to choose the (subjectively) lower cost males, they will replace the females, and give new positions to males.

In summary, we suggest that in terms of eliminating wage differentials that occur when employers discriminate in this way, the result is likely to be that some women will be made better off if the legislation is enforced: those who keep their jobs will now be paid the same as the males, although their wage may still be lower than the value of their marginal product (as at point E in Figure 2(a)). At the same time, some women may be made worse off. Specifically some women may become unemployed and have to compete for women's jobs elsewhere in the economy possibly at lower wages than before. Moreover, the female workers in the affected firms may now find they are competing with males who find the female occupation attractive at higher wages. And, if the original source of the discrimination was an employer's preference for males, this may now result in promotions and

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27 This is similar to the prediction of what happens when some firms are covered by minimum wage laws or unions, and some aren't.

28 This argument of cost disadvantages in a competitive market has been previously raised in the very useful study of equal pay for work of equal value produced by the Ontario Ministry of Labour [18].

DIAGRAM 2

Figure 2(a)

**Typists Occupation
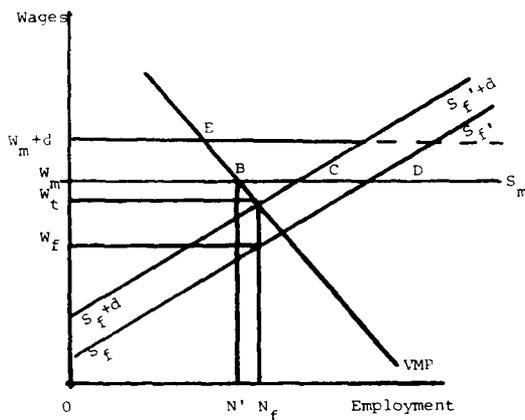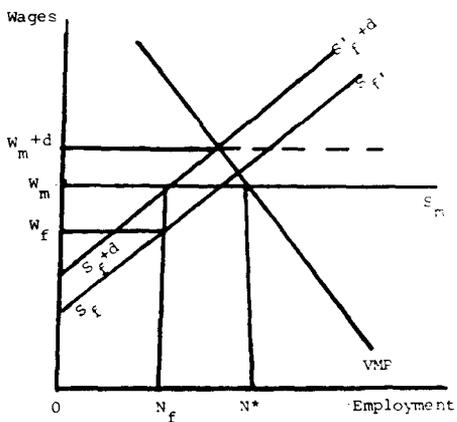with Complete Segregation**

Figure 2(b)

**Typists Occupation
without Complete Segregation**

new hires going to males. The theory, of course, is unable to predict the size of any of these effects, although they are likely to be larger, the larger the initial wage adjustment[29].

A fundamental problem with the attempted enforcement of such legislation, however is that because of the difficulty, in practice, of determining the exact cause of market wage differentials, the Commission may incorrectly assess the cause of the male/female wage differential in any given case. As discussed in Section II, occupational segregation resulting from the case in which employers discriminate against women in all jobs, although more so in male jobs, is only one possible source of wage differentials by sex. Occupational segregation accompanied by overcrowding on the supply side, for example, can give rise to occupational wage differentials by sex even if the jobs are of equal value and the employer is neutral towards females in the female jobs. If the commission attributes such differentials solely to discrimination (when it could be argued discrimination caused the segregation and subsequent overcrowding resulted in the wage differentials) and forces the firm to pay the same wages in both the male and the female occupation, then female unemployment is almost certain to occur. Moreover, if the over-supply problem is a result of women's own preferences about the types of jobs that are more suitable to their combined career-household responsibilities, (as suggested by Polachek, for example) then forcing them out such jobs may cause real hardship[30]. Increased competition with males for the female jobs is also a possibility in this case as well.

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29 In fact, the employment effects will depend on the elasticity of demand. The more inelastic the demand, caeteris paribus, the smaller the employment adjustment.

30 We note that wage differentials in jobs of equal value occur in the labour market among males as well. Consider, for example, the case of a university as a firm which produces an educational product. To do this, the university hires professors in different disciplines whose jobs are essentially identical — i.e. to teach and do research. However, if one compares the wages of professors in say, history or classics on the one hand with professors in engineering or business on the other, it is generally the case that their earnings are substantially different (caeteris paribus) because of the differing supply conditions. In other words, in a market, apparently identical productive characteristics, need not — in the short run or even in the long run as long as occupational preferences differ — be rewarded equally. And to try, artificially, to make such wages equal, will probably result in shortages of certain types of labour. This existence of wage differentials among males in jobs of equal value also raises an administrative problem for the enforcement of the legislation. If in resolving a complaint about the value of some female's job and there are two male occupations of the same value, but with *different wages,* to which of these will or should the wages of the female's job be adjusted?

A second problem with the attempted enforcement of the Act, arises if the Commission mistakenly decides that two jobs are of equal value, when in fact they are not. Clearly, the process of trying to estimate marginal products through a process of job evaluation is a very difficult and subjective one, and in the final analysis the Commission, in evaluating a complaint, will have to decide whether the employer has given reasonable weights to the various factors involved in the jobs, or whether the weighting is, in fact, due to some prejudice in the employer's mind. In other words, the Commission will have to assess the value of work, and while blatant abuses of job evaluation between jobs which are very similar in nature may be easy to discern, they are not likely to be at all easy to discern in jobs which may be very different in nature[31]. In any case, if the Commission incorrectly assesses the value of work, so that it claims discriminatory wage differentials where none actually exist in that particular occupational market, then again, unemployment is the most likely result of raising women's wages above their equilibrium level. Moreover, if the initial differential was to compensate for some undesirable aspect of the male job — higher risk of injury, or unpleasant working conditions — the firm may have great difficulty in filling those jobs without a compensating differential.

As a final comment, we note that in Section II it was shown that occupational segregation by sex can also occur along skill lines. To the extent therefore, that Beckerian or statistical discrimination has resulted in women being segregated into the truly low productivity 'Joe jobs' of the economy which cannot under any productivity criteria be compared equally to those of men (even though women could do the men's jobs equally well) or to the extent that whole firms or industries become 'male' or 'female' oriented, the legislation cannot be expected to help very much with the problem of female job ghettos. If it is true, therefore, that a substantial part of occupational segregation has occurred in these ways with resultant low wages for women, then the equal pay for work of equal value legislation cannot be expected to make substantial inroads on male/female earnings differentials. Moreover, as Polachek suggests, some occupational segregation may be the result of women's own preferences about jobs. If enforcement of the legislation results in reduced employment in such cases then some women will certainly be made worse off.

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31   This may explain why the recent cases brought to the Human Rights Commission involving the female nurses and the male technicians working in the federal penitentiaries, and that of the female librarians versus the male historical researchers could be successfully compared. In both cases, a review showed that the functions of the two groups were pretty similar. This would not be true, for example, of a case involving the comparison of secretaries with truck drivers, where the concept of equal value would be extremely difficult to apply.

SUMMARY AND CONCLUSIONS

In this paper, we have tried to assess the effect in the labour market of applying the equal pay for work of equal value legislation. This has been done by looking at the legislation in the broad context of models of occupational segregation and their effect on male/female wage differentials. The main conclusion of the paper is that if the Commission accurately diagnoses wage differentials caused by discrimination, enforcement of the legislation can be expected to make some women better off in the sense that wage parity with males in jobs of equal value will be achieved. Even in this case, however, it is suggested that some negative side effects will occur (unemployment and increased competition with males for the female jobs), but the analysis does not permit us to say how large these effects will be.

Enforcement of the Act in certain cases of occupational segregation, however, may cause problems. If the Commission erroneously diagnoses discrimination where none exists, or if it encounters cases where women are getting lower wages in equal value jobs because of prevailing conditions on the supply side, then unemployment of women in certain occupations and occupational shortages in other jobs may indeed result because of wages set artificially above their market equilibrium. Moreover, we note that if a substantial amount of occupational segregation in the economy is in the form whereby the women are in low productivity jobs, the problem of female job ghettos will not be much alleviated by the existence of equal pay for equal value legislation.

None of the above is meant to suggest, however, that the equal pay for work of equal value legislation is useless, or should be withdrawn. Clearly its aims are admirable, and if properly administered will certainly make some women in the labour market much better off. Rather, the analysis is designed to show that, like most things, the effort to rid the labour market of discrimination involves trade-offs, at least in the short run. Moreover, the analysis is designed to show that the problem of occupational segregation may need more than one form of attack to break it down. Specifically, to the extent that statistical discrimination has relegated women into low productivity jobs, and/or to the extent that supply side problems have caused a kind of self-selected occupational segregation, policies such as equal employment opportunities, and a better information network both for employers as to the productive characteristics of women, and for women as to which jobs might be better paying for them, might be better suited to these particular problems.

BIBLIOGRAPHY

ARROW, K., "The Theory of Discrimination", in *Discrimination in the Labour Market,* O. Ashenfelter and A. Rees, ed., Princeton University Press, 1971.

ARROW, K., *Some Models of Racial Discrimination in the Labour Market,* Rand Corporation, 1971.

BECKER, G., *The Economics of Discrimination,* University of Chicago Press, Chicago, 1971.

BERGMAN, B., "Occupational Segregation, Wages, and Profits when Employers Discriminate by Race or Sex", *Eastern Economic Journal,* April/July, 1974, pp. 103-110.

CAIN, Glen C., "The Challenge of Dual and Radical Theories of the Labour Market to Orthodox Theory", *American Economic Review, Papers and Proceedings,* vol. 65, no. 2, May 1975, pp. 16-22.

Canada Gazette Part III, vol. 2, no. 7, 1976/77.

Canadian Human Rights Commission, *Equal Pay for Male and Female Employees Who are Performing Work of Equal Value: Interpretation of the Canadian Human Rights Act,* Ottawa, Canada (undated).

Canadian Human Rights Commission, *Methodology and Principles for Applying Section II of the Canadian Human Rights Act,* Ottawa, Canada, (undated).

DOERINGER, P. and M. PIORE, *Internal Labour Markets and Manpower Analysis,* Lexington, Mass., 1971.

EDGEWORTH, F., "Equal Pay for Men and Women for Equal Work", *Economic Journal* 32, December, 1922, pp. 431-457.

ENGLAND, Paula, "The Failure of Human Capital Theory to Explain Occupational Sex Segregation", *Journal of Human Resources,* Summer 1982, Vol. XVII, No. 3.

FAWCETT, M., "Equal Pay for Equal Work", *Economic Journal* 28, March, 1918, pp. 1-6,

FREEMAN, R.B., "Labour Market Discrimination: Analysis, Findings, and Problems", in M.D. Intriligator and D.A. Kendrick (eds), *Frontiers of Quantitative Economics,* Volume II, North Holland Publishing Co., (1974).

GUNDERSON, M., *Labour Market Economics: Theory, Evidence and Policy in Canada,* McGraw-Hill Ryerson Ltd., 1980.

GUNDERSON, Morley, "The Influence of the Status and Sex Composition of Occupations on the Male-Female Earnings Gap", *Industrial and Labour Relations Review,* vol. 31, no. 2, Jan., 1978.

GUNDERSON, Morley, "Work Patterns", in G. Cook ed., *Opportunity for Choice: A Goal for Women in Canada,* Ottawa, Statistics Canada, 1976.

MINCER, Jacob and Haim OFEK, "Interrupted Work Careers: Depreciation and Restoration of Human Capital", *Journal of Human Resources,* Winter 1982, Vol. XVII, No. 1.

Ontario Ministry of Labour, *Equal Pay for Work of Equal Value, A Discussion Paper,* October, 1976.

PHELPS, E., "The Statistical Theory of Racism and Sexism", *American Economic Review,* 62 September 1972, 99, pp. 659-661.

POLACHEK, Solomon William, "Occupational Self-Selection: A Human Capital Approach to Sex Differences in Occupational Structure", *Review of Economics and Statistics,* vol. LXIII, February, 1981, no. 1.

ROBB, Roberta, "Earnings Differentials Between Males and Females in Ontario 1971", *Canadian Journal of Economics,* May 1978, pp. 350-359.

SHAPIRO, Daniel M. and Morton STELCNER, "Male-Female Earnings Differentials and the Role of Language in Canada, Ontario, and Québec, 1970", *Canadian Journal of Economics,* May 1981, pp. 341-348.

Statistics Canada, *Canada's Female Labour Force,* (98-804), Ottawa, Canada, March, 1980.

Statistics Canada, *Higher Education-Hired? Sex Differences in Employment Sex Differences in Employment Characteristics of 1976 post-secondary graduates.* Statistics Canada, Projection Section, Education, Science and Culture Division, 1980.

Statistics Canada, *Women in the Labour Force, Facts and Figures, 1978-1979 edition, Part II, earnings of men and women,* Ottawa, Canada.

THUROW, Lester, *Generating Inequality: Mechanisms of Distribution in the U.S. Economy,* Basic Books Incorporated, publishers, New York, 1975.

THUROW, Lester, *Poverty and Discrimination,* Washington, Brookings Institute, 1969.

La ségrégation professionnelle et le salaire égal pour un travail d'égale valeur

La *Charte canadienne des droits et libertés* est entrée en vigueur au Canada en 1978. Dans la deuxième partie de cette loi, on déclare qu'il y a pratique discriminatoire lorsqu'un employeur établit et maintient des écarts de salaires entre les hommes et les femmes dans un établissement où les uns et les autres effectuent un travail de valeur égale. Le but de l'article est d'essayer d'évaluer l'effet de l'application de cette loi sur le marché du travail.

L'analyse a été effectuée en considérant la loi dans un contexte large portant sur différents types de ségrégation professionnelle ainsi que sur leurs conséquences dans les écarts de salaires entre les hommes et les femmes. On a retenu les modèles de Becker, Arrow, Bergman, Phelps, Polacheck et Doeringer et Piore.

La conclusion principale à tirer de l'article est la suivante: si la Commission des droits décèle exactement les écarts de salaires causés par la discrimination, on peut s'attendre à ce que la mise en vigueur de la législation puisse améliorer la situation d'un certain nombre de femmes dans le sens que la parité de salaires avec les hommes pour des fonctions d'égale valeur se réalise. Même dans ce cas, cependant, on peut considérer qu'il s'ensuivra certains effets négatifs secondaires (chômage et concurrence accrue avec les hommes dans les emplois spécifiquement féminins), mais l'analyse ne permet pas de mesurer l'ampleur de ces effets.

L'application de la loi peut entraîner des problèmes encore plus graves dans certains cas de ségrégation professionnelle. Si la Commission diagnostique erronément de la discrimination là où il n'y en a aucune ou si elle rencontre des cas où les femmes touchent des salaires plus bas dans des postes d'égale valeur à cause des conditions de l'offre du travail, il peut en résulter du chômage pour les femmes dans certaines occupations car le taux de salaires aura été artificiellement fixé au-dessus de la valeur du marché. De plus, il faut noter que si une bonne partie de la ségrégation professionnelle dans l'activité économique réside dans le fait que les femmes se trouvent dans des postes de faible productivité, le problème des ghettos d'emplois féminins ne sera guère corrigé par l'existence d'une législation portant sur le salaire égal pour un travail d'égale valeur.

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